CLAIMS

1. An isolated nucleic acid comprising a polynucleotide sequence of SEQ ID NO: 10, or of a complementary polynucleotide sequence.

2. An isolated nucleic acid comprising at least eight consecutive nucleotides of a polynucleotide sequence of SEQ ID NO: 10, or of a complementary polynucleotide sequence.

3. An isolated nucleic acid comprising at least 80% nucleotide identity with a nucleic acid comprising SEQ ID NO: 10, or a complementary polynucleotide sequence.

4. The isolated nucleic acid according to claim 3, wherein the nucleic acid comprises an 85%, 90%, 95%, or 98% nucleotide identity with the nucleic acid comprising SEQ ID NO: 10, or a complementary polynucleotide sequence.

5. An isolated nucleic acid that hybridizes under high stringency conditions with a nucleic acid comprising SEQ ID NO: 10, or a complementary polynucleotide sequence.

6. An isolated nucleic acid comprising a polynucleotide sequence as depicted in SEQ ID NO: 10, or of a complementary polynucleotide sequence.

7. A nucleotide probe or primer specific for an ngn3 nucleic acid, wherein the nucleotide probe or primer comprises at least 15 consecutive nucleotides of a polynucleotide sequence of SEQ ID NO: 10, or of a complementary polynucleotide sequence.

8. The nucleotide probe or primer according to claim 7, wherein the nucleotide probe or primer comprises a marker compound.

9. A nucleotide probe or primer specific for an ngn3 nucleic acid, wherein the nucleotide probe or primer comprises SEQ ID NO: 10, or of a complementary polynucleotide sequence.

10. The nucleotide probe or primer according to claim 9, wherein the

nucleotide probe or primer comprises a marker compound.

11. A method of amplifying a region of the nucleic acid according to claim 1, wherein the method comprises:

a) contacting the nucleic acid with two nucleotide primers, wherein the first nucleotide primer hybridizes at a position 5' of the region of the nucleic acid, and the second nucleotide primer hybridizes at a position 3' of the region of the nucleic acid, in the presence of reagents necessary for an amplification reaction; and

b) detecting the amplified nucleic acid region.

12. The method according to claim 11, wherein the two nucleotide primers are selected from the group consisting of

a) a nucleotide primer comprising at least 15 consecutive nucleotides of a polynucleotide sequence of SEQ ID NO: 10, or of a complementary polynucleotide sequence, and

b) a nucleotide primer comprising a polynucleotide sequence of SEQ ID NO: 10, or of a complementary polynucleotide sequence.

13. A kit for amplifying the nucleic acid according to claim 1, wherein the kit comprises:

a) two nucleotide primers whose hybridization position is located respectively 5' and 3' of the region of the nucleic acid; and optionally,

b) reagents necessary for an amplification reaction.

14. The kit according to claim 13, wherein the two nucleotide primers are selected from the group consisting of

a) a nucleotide primer comprising at least 15 consecutive nucleotides of a polynucleotide sequence of SEQ ID NO: 9, or of a complementary polynucleotide sequence, and

b) a nucleotide primer comprising a polynucleotide sequence of any one of SEQ ID NOs: 9, 11, 12, 14, 15, 16, 17, 18, 19, 21, 23, 24, 25, or of a complementary polynucleotide sequence.

15. A method of detecting a nucleic acid according to claim 1, wherein the method comprises:

a) contacting the nucleic acid with a nucleotide probe selected from the group consisting of

1) a nucleotide probe comprising at least 15 consecutive nucleotides of a polynucleotide sequence of SEQ ID NO: 9, or of a complementary polynucleotide sequence, and

2) a nucleotide probe comprising a polynucleotide sequence of any one of SEQ ID NOs: 9, 11, 12, 14, 15, 16, 17, 18, 19, 21, 23, 24, 25, or of a complementary polynucleotide sequence, and

b) detecting a complex formed between the nucleic acid and the probe.

16. The method of detection according to claim 15, wherein the probe is immobilized on a support.

17. A kit for detecting the nucleic acid according to claim 1, wherein the kit comprises

a) a nucleotide probe selected from the group consisting of

1) a nucleotide probe comprising at least 15 consecutive nucleotides of a polynucleotide sequence of SEQ ID NO: 9, or of a complementary polynucleotide sequence, and

2) a nucleotide primer comprising a polynucleotide sequence of any one of SEQ ID NOs: 9, 11, 12, 14, 15, 16, 17, 18, 19, 21, 23, 24, 25, or of a complementary polynucleotide sequence, and optionally,

b) a reagent necessary for a hybridization reaction.

18. The kit according to claim 17, wherein the probe is immobilized on a support.

19. A recombinant vector comprising the nucleic acid according to claim 1.

20. The recombinant vector according to claim 19, wherein the recombinant vector is an adenovirus.

21. A recombinant vector comprising the nucleic acid according to claim 6.

22. The recombinant vector according to claim 21, wherein the

recombinant vector is an adenovirus.

23. A recombinant host cell comprising the nucleic acid according to claim 1.

24. A recombinant host cell comprising the nucleic acid according to claim 6.

25. A recombinant host cell comprising the recombinant vector according to claim 19.

26. A recombinant host cell comprising the recombinant vector according to claim 21.

27. An isolated nucleic acid encoding a polypeptide comprising an amino acid sequence of SEQ ID NO: 10.

28. A recombinant vector comprising the nucleic acid according to claim 27.

29. A recombinant host cell comprising the recombinant vector according to claim 28.

30. A recombinant host cell comprising the nucleic acid according to claim 27.

31. An isolated polypeptide comprising an amino acid sequence of SEQ ID NO: 10.

32. An antibody directed against the isolated polypeptide according to claim 31.

33. The antibody according to claim 32, wherein the antibody comprises a detectable compound.

34. An isolated polypeptide comprising an amino acid sequence as depicted in SEQ ID NO: 10.

35. An antibody directed against the isolated polypeptide according to claim 34.

36. The antibody according to claim 35, wherein the antibody comprises a detectable compound.

37. A method of detecting a polypeptide, wherein the method comprises

a) contacting the polypeptide with an antibody according to claim 32; and

b) detecting an antigen/antibody complex formed between the polypeptide and the antibody.

38. A diagnostic kit for detecting a polypeptide, wherein the kit comprises

a) the antibody according to claim 32; and

b) a reagent allowing detection of an antigen/antibody complex formed between the polypeptide and the antibody.

39. A pharmaceutical composition comprising the nucleic acid according to claim 1 and a physiologically compatible excipient.

40. A pharmaceutical composition comprising the nucleic acid according to claim 6 and a physiologically compatible excipient.

41. A pharmaceutical composition comprising the recombinant vector according to claim 19 and a physiologically compatible excipient.

42. A pharmaceutical composition comprising the recombinant vector according to claim 21 and a physiologically compatible excipient.

43. A pharmaceutical composition comprising the nucleic acid according to claim 27 and a physiologically compatible excipient.

44. A pharmaceutical composition comprising the recombinant vector according to claim 28 and a physiologically compatible excipient.

45. A pharmaceutical composition comprising the recombinant host cell according to claim 29 and a physiologically compatible excipient.

46. A pharmaceutical composition comprising the recombinant host cell according to claim 30 and a physiologically compatible excipient.

47. A pharmaceutical composition comprising the polypeptide according to claim 31 and a physiologically compatible excipient.

48. A pharmaceutical composition comprising the polypeptide according to claim 34 and a physiologically compatible excipient.

49. Use of the nucleic acid according to claim 1 for the manufacture of

a medicament intended for the prevention or treatment of a nervous system dysfunction.

50. Use of the nucleic acid according to claim 6 for the manufacture of a medicament for the prevention or treatment of a platelet activation dysfunction.

51. Use of the recombinant vector according to claim 19 for the manufacture of a medicament for the prevention or treatment of a nervous system dysfunction.

52. Use of the recombinant vector according to claim 21 for the manufacture of a medicament intended for the prevention or treatment of a nervous system dysfunction.

53. Use of the nucleic acid according to claim 27 for the manufacture of a medicament for the prevention or treatment of a nervous system dysfunction.

54. Use of the recombinant vector according to claim 28 for the manufacture of a medicament for the prevention or treatment of a nervous system dysfunction.

55. Use of the recombinant host cell according to claim 29 for the manufacture of a medicament for the prevention or treatment of a nervous system dysfunction.

56. Use of the recombinant host cell according to claim 30 for the manufacture of a medicament for the prevention or treatment of a nervous system dysfunction.

57. Use of the polypeptide according to claim 31 for the manufacture of a medicament intended for the prevention or treatment of a nervous system dysfunction.

58. Use of the polypeptide according to claim 31 for screening an active ingredient for the prevention or treatment of a nervous system dysfunction.

59. Use of a recombinant host cell expressing the polypeptide according to claim 31 for screening an active ingredient for the prevention or treatment of a nervous system dysfunction.

60. An implant comprising the recombinant host cell according to claim 23.

61. An implant comprising the recombinant host cell according to claim 25.

62. An implant comprising the recombinant host cell according to claim 29.

63. A method of identifying a modulator, agonist, or antagonist of a polypeptide according to the invention in a sample comprising

a) obtaining a cell, for example a cell line, that, either naturally or after transfecting the cell with a nucleic acid encoding a polypeptide according to the invention, expresses a polypeptide according to the invention,

b) transfecting the cell with a nucleic acid encoding a marker gene,

c) incubating the cell of step b) with a test solution or sample comprising a potential modulator, agonist or antagonist,

d) measuring the amount of β-galactosidase activity, and

e) comparing the amount of β-galactosidase activity measured in step d) with an amount of β-galactosidase activity measured with a cell that has not been previously incubated in the presence of the candidate modulator, agonist, or antagonist compound for the polypeptide according to the invention.

64. The method according to claim 63, wherein the polypeptide comprises an amino acid sequence of SEQ ID NO: 10.

65. The method according to claim 63, wherein the nucleic acid encodes a β-galactosidase (β-gal) marker gene.

66. Use of the polypeptide according to claim 31 to control and/or participate in the expression of a gene.